

## BW54 SERIES

Battery Chargers 12 & 24V: 70 ~ 140 watts



### Specifications

Input Voltage	240V ac ( 200~264 )
Input Frequency	47 ~ 63Hz
Input Fuse	Yes
Hold Up Time	30ms @ 230Vac input, full load and no battery connected
Power Factor	0.42 @ 230Vac and full load
No load Power	<5W
Start up Time	Typically 1.5 seconds
Output Voltage	13.8V / 27.6V Refer to table
Output Current	Refer to table
Power Limit	Typically at 115%
Efficiency	80-85% @ 230Vac and full load
OVP	105-125% latching. Recycle input after 30 seconds to restart
Short Circuit Protection	Hiccup mode
Current Limit	Primary side power limited
Thermal Protection	Primary side ( non -latching )
Operating Temp.	-10°C to +70°C (Derate 2.5% / °C above 50°C)
Cooling	Convection cooled
Humidity	10-95% non -condensing
Load Regulation	±0.8%
Line Regulation	±0.7%
Ripple & Noise	0.5% @ 230Vac , full load ( BW =DC - 10Hz)
Safety	EN60950, Class I
Isolation	Input - Output / Case: 2200Vdc
EMC	EN55022 Class B Conducted EN55022 Class A Radiated
Immunity	EN61000 -3-2 Class A Harmonics EN61000 -4-4 Fast Transients EN61000 -4-5 Surge EN61000 -4-11 Voltage Dips

### Features

- Three power levels 70, 100 and 140 watts
- Separate load and battery charging output
- 12V & 24V systems
- Convection cooled – No fans
- Power Fail & Battery Fail alarms.
- Short circuit protection & Battery Fuse protection
- Deep discharge battery protection ( Low Volt Disconnect )
- DC OK Led's for various alarms
- MTBF > 210,000hrs
- IEC Input inlet for AC power
- Key lock
- Optional – Distribution board
- Optional Batteries: ( LCR12V.2P 12V 7AH )

### Description

The BW54 Series is a new generation / smart Power Supply that is designed to provide battery backed-up power in the event of either the PSU or the battery being disconnected or short circuited.

When the AC supply fails, the battery will automatically be connected and will provide power until the ac supply is restored.. If the battery has reached it's disconnect voltage, it will automatically be disconnected to prevent deep discharge damage.

Designed for powering critical loads with battery back-up, in a wide range of Industrial applications and in particular Security installations and Access Control, with separate Load and Battery Charging circuits.

A wide range of Signals, Led's and Alarms, all aimed at a providing the optimum solution for powering critical DC Loads.

An isolated Common Fault relay has been provided which will operate if any fault is found (This is a fail-safe signal so will signal a fault even if no power sources are on/connected.

### Battery & Signals:

Temp Compensation	Yes
Deep Discharge	Protection at $21V \pm 0.3V$ ( for 24V systems ) Protection at $10V \pm 0.3V$ ( for 12V systems )
Signals	<ul style="list-style-type: none"><li>• Mains Fail, Battery O/C, Charger Loss, Battery Low</li><li>• LED's &amp; open collector – 100mA sink, Status LED Green = Flashing = OK</li><li>• Common Fault (Volt free) relay 2x Customer options – open collector – 30mA sink HiZ indication = 1J</li><li>• Battery Powerfail signal = 100mS</li></ul>
Alarm	Common Fault relay via voltage free contacts
LED'S	<ul style="list-style-type: none"><li>• Mains Fail</li><li>• Battery Low</li><li>• Batter Open Circuit</li><li>• Charger Loss</li><li>• Status ON</li></ul>
Connector-Input	Input: ICE320 C14
Co nnecto r-Output	Load & Battery: Barrier Strip / Screw terminal
Connector-Signals	Molex 6410 vertical
Dimensions	320 x 300 x 90mm ( W*H*D )

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Model	Output				Power W
	Nom V	Float V	Load A	Charger A	
BW 5475-12	12V	13.8V	4.0A	1.0A	75W
BW 54100-12	12V	13.8V	5.6A	1.4A	100W
BW 54140-12	12V	13.8V	8.0A	2.0A	140W
BW 5475-24	24V	27.6V	2.4A	0.6A	75W
BW 54140-24	24V	27.6V	4.0A	1.0A	140W

The optional distribution board provides:

- Eight 1.6A fused protected outputs
- Fuse LED indicator
- Battery Circuit Breaker 15A
- For unit with distribution board add ... / D to model ( BW5475 -12/D )



Fig 1: Optional Distribution board

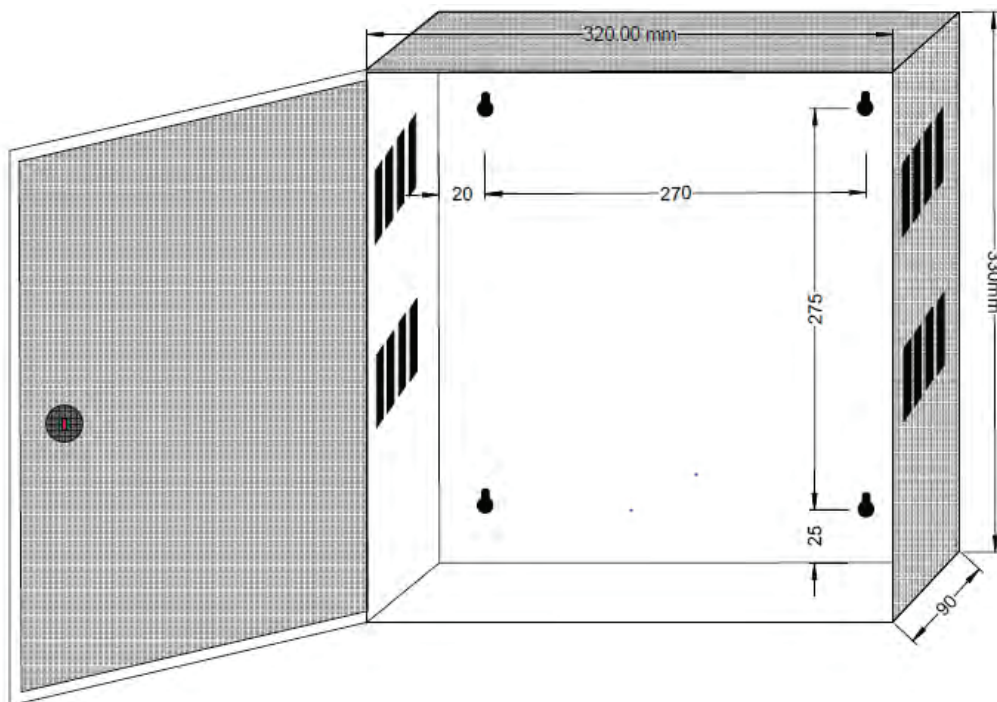


Fig 2: Mechanical